APGA Update

Erin Kurilla – VP of Operations & Safety

December 5, 2018

Alabama Pipeline Safety Seminar

American Public Gas Association

“Think about every problem, every challenge, we face. The solution to each starts with education.”

- George H.W. Bush

Who is APGA?

- 1,028 Publicly Owned Gas Systems in U.S.
  - 74 in Alabama
- 730+ are APGA Members
  - 37 states
  - Serving 4.1 Million Customers
  - 21,000 Employees
  - Operating120,000 Miles of main

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Publicly Owned Gas Systems

United States

Customers

- Smallest: 19
- Average: 5,617
- Largest: 478,267

Employees

- Smallest: 1
- Average: 27
- Largest: 1,650

Alabama

Customers

- Smallest: 79
- Average: 5,082
- Largest: 52,564

Employees

- Smallest: 2
- Average: 21
- Largest: 193

APGA Summarized…

The
Safe and Reliable Delivery
of
Affordable Natural Gas
at
Just & Reasonable Rates

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APGA Committees

- Government Relations
  - Regulatory Subcommittee
  - Legislative Subcommittee
  - Direct Use Task Group
  - DG / CHP Task Group
- Operations & Safety Committee
- Gas Supply Committee
- Marketing & Sales Committee
- NGV Committee
- Codes & Standards Committee
- Editorial Committee
- Associates Committee
- Media & Public Outreach Committee

Merrimack Valley Incident

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Merrimack Valley Incident

September 13, 2018

Incident Occurred

November 14, 2018

NTSB Preliminary Report & Urgent Safety Recommendations Published

November 26, 2018

Congressional Field Hearing in Lawrence, MA

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What we know…

- 1 Individual Killed
- 21 Individuals Hospitalized
- 131 Homes Damaged
  - 5 Destroyed

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What we know…

- Low Pressure Cast Iron System
  - 14 Regulator Stations (75 psig → 0.5 psig)
- Undergoing a cast iron replacement project
  - New plastic system would operate at same pressures as existing system
- Downstream regulator sensing lines were not transferred from the cast iron system to the new plastic system

What we know…

- The engineering work package did not specify transferring the regulator sensing lines.
  - This omission was not identified during the "constructability review".
  - The Measurement & Regulation department did not participate in the review.
  - The field engineer responsible for the work package was not a Professional Engineer (PE).

What we know…

- The alignment sheets for the existing system did not contain information about the regulator sensing lines.
- No technician manually monitored downstream pressures during commissioning of the replaced line.

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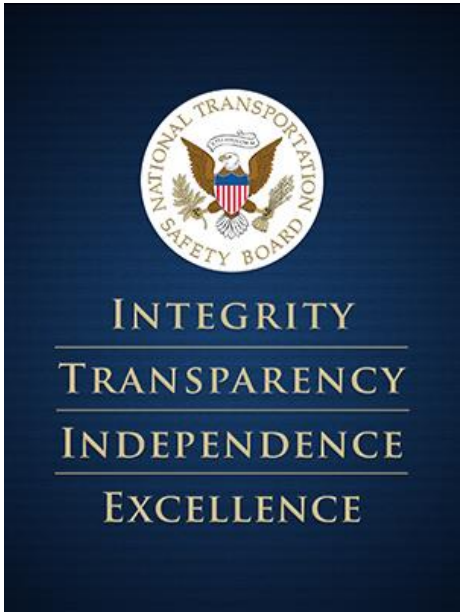
Who is the NTSB?

Mission Statement:

Making transportation safer by conducting independent accident investigations, advocating safety improvements, and deciding pilots' and mariners' certification appeals.

Legislative Mandate:

- Independent Federal Agency
- Charged by Congress
- Investigates Significant Pipeline Incidents
  - Determines Probable Cause
  - Issues Safety Recommendations
- Carries out special Safety Studies
- Provides assistance to victims



NTSB Urgent Recommendation

To NiSource, Inc.:

Develop and implement control procedures during modifications to gas mains to mitigate the risks identified during management of change operations. Gas main pressures should be continually monitored during these modifications and assets should be placed at critical locations to immediately shut down the system if abnormal operations are detected.

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NTSB Urgent Recommendation

To the Commonwealth of Massachusetts:

Eliminate the professional engineer licensure exemption for public utility work and require a professional engineer's seal on public utility engineering drawings

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NTSB Urgent Recommendation

To NiSource, Inc.:

Revise the engineering plan and constructability review process across all of your subsidiaries to ensure that all applicable departments review construction documents for accuracy, completeness, and correctness, and that the documents or plans be sealed by a professional engineer prior to commencing work.

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Professional Engineering

- Qualifications for PE licensure are set through the state's engineering statute.
  - Alabama Exemption to Engineering Licensure Law

"The practice of engineering or land surveying with respect to transportation or utility facilities by any transportation company or public utility subject to regulation by the Alabama Public Service Commission, the Federal Aviation Administration, the Federal Communications Commission, the Federal Energy Regulatory Commission, or the Nuclear Regulatory Commission, including its parents, affiliates, or subsidiaries; or by the officers and employees of any transportation company or public utility including its parents, affiliates, or subsidiaries. This exception shall not extend to any engineer or land surveyor engaged in the practice of engineering or land surveying whose compensation is based in whole or in part on a fee." (Alabama Code Sec.34-11-14)

Professional Engineering: MA Actions

- Massachusetts Governor Baker filed legislation:

"natural gas engineering plans and specifications must bear the stamp of approval of a certified professional engineer **when that work could pose a material risk to public safety, as determined by the Department of Public Utilities (DPU).**"

- MA DPU will then determine what actions require PE stamps.

NTSB Urgent Recommendation

To NiSource, Inc.:

Review and ensure that all records and documentation of your natural gas systems are traceable, reliable, and complete.

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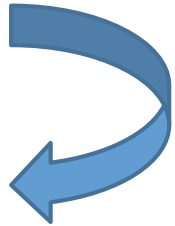
If you didn't document it...

... it didn't happen.

NTSB Recommendations

To NiSource, Inc.:

Apply management of change process to all changes to adequately identify system threats that could result in a common mode failure.



Pipeline SMS GROUP

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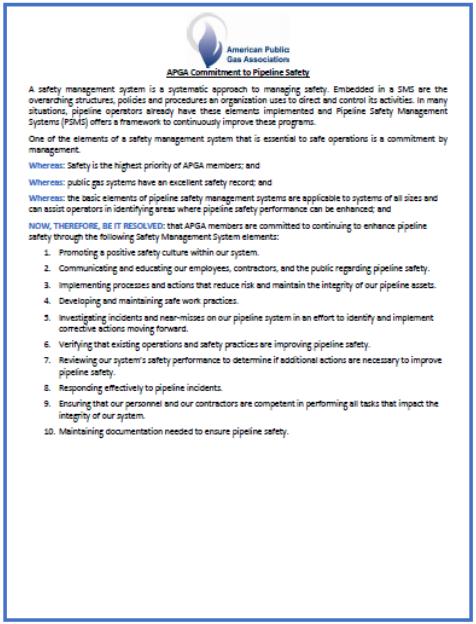
APGA's Commitment to Pipeline Safety

- Developed within the Operations & Safety Committee
- Approved at the July 2018 Annual Conference



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APGA Commitment to Pipeline Safety

A safety management system is a systematic approach to managing safety. Embedded in a SMS are the overarching structures, policies and procedures an organization uses to direct and control its activities. In many situations, pipeline operators already have these elements implemented and Pipeline Safety Management Systems (PSMS) offers a framework to continuously improve these programs.

One of the elements of a safety management system that is essential to safe operations is a commitment by management.

Whereas: Safety is the highest priority of APGA members; and

Whereas: public gas systems have an excellent safety record; and

Whereas: the basic elements of pipeline safety management systems are applicable to systems of all sizes and can assist operators in identifying areas where pipeline safety performance can be enhanced; and

NOW, THEREFORE, BE IT RESOLVED: that APGA members are committed to continuing to enhance pipeline safety through the following Safety Management System elements:

1. Promoting a positive safety culture within our system.
2. Communicating and educating our employees, contractors, and the public regarding pipeline safety.
3. Implementing processes and actions that reduce risk and maintain the integrity of our pipeline assets.
4. Developing and maintaining safe work practices.
5. Investigating incidents and near-misses on our pipeline system in an effort to identify and implement corrective actions moving forward.
6. Verifying that existing operations and safety practices are improving pipeline safety.
7. Reviewing our system's safety performance to determine if additional actions are necessary to improve pipeline safety.
8. Responding effectively to pipeline incidents.
9. Ensuring that our personnel and our contractors are competent in performing all tasks that impact the integrity of our system.
10. Maintaining documentation needed to ensure pipeline safety.

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APGA's Commitment

1. Promoting a positive **safety culture** within our system.
2. **Communicating** and educating our employees, contractors, and the public regarding pipeline safety.
3. Implementing processes and actions that **reduce risk and maintain the integrity** of our pipeline assets.

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APGA's Commitment

4. Developing and maintaining **safe work practices**.
5. **Investigating incidents** and near-misses on our pipeline system in an effort to identify and implement corrective actions moving forward.
6. **Verifying** that existing operations and safety practices are **improving** pipeline safety.

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APGA's Commitment

7. **Reviewing** our system's safety performance to determine if **additional actions** are necessary to improve pipeline safety.
8. **Responding** effectively to pipeline incidents.
9. Ensuring that our personnel and our contractors are **competent** in performing all tasks that impact the integrity of our system.
10. Maintaining **documentation** needed to ensure pipeline safety.

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PSMS Planning Tool / Gap Analysis Tool for Small Operators

- **What:** 50 + Question Multiple Choice Survey
- **Who:** Any system (not just APGA members) & for their internal use **only**
- **How:** Select the answers that *most* reflects their system
- **Why:** Identifies potential areas of improvement
- **When:** Beta Version Available Now!
- **Where:** https://www.apga.org/issues/operationssafety/apga-psms

Example 1

The results of our DIMP or TIMP risk analysis are…

A. Only known by **the person responsible** for our integrity management plan.

B. Are **shared** with gas employees **periodically** but are **never explained**.

C. Are shared with gas employees **annually** but are never explained.

D. Are shared with gas employees annually, **including our senior leadership,** and the selection of risk reduction projects that are being planned for the next year are **explained**.

Example 2

A. Our employees are trained to **identify** and **suggest improvements** that they find in the field.

B. Our employees are trained **and encouraged** to identify and suggest improvements that they find in the field.

C. Our employees are trained and encouraged to identify and suggest improvements that they find in the field. We have a **system** in place **to assist** them in documenting those suggested improvements.

D. Our employees are trained and encouraged to identify and suggest improvements that they find in the field. We have a system in place to assist them in submitting those improvements and we provide **follow-up responses** to all suggestions, regardless if the suggestion is implemented.

APGA & PSMS

- **Embracing** the concepts within PSMS
- **Participating** in industry efforts
- **Translating** into language that fits public systems
- **Creating** tools to assist in implementation
- **Learning** from other industry sectors
- **Committed** to continuous improvement

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What we don't know…

- Final NTSB Recommendations & Findings
  - 1-2 Years after Incident
- Pipeline Safety Reauthorization Mandates
  - Congressional Hearings: Q2-Q4 2019
- PHMSA Actions
  - Advisory Bulletins
  - Guidance
  - Rulemakings

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